

Practitioner's Docket No. 701586-50174-DIV

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: Lerner, Adam  
Serial No.: 10/060,759  
Filed: January 30, 2002  
For: COMPOSITIONS AND METHODS FOR THE TREATMENT OF CHRONIC LYMPHOCYTIC LEUKEMIA

GROUP: 1614  
EXAMINER: SPIVACK, Phyllis

**DECLARATION OF DR. ADAM LERNER**

I, Adam Lerner, M.D., hereby declare as follows:

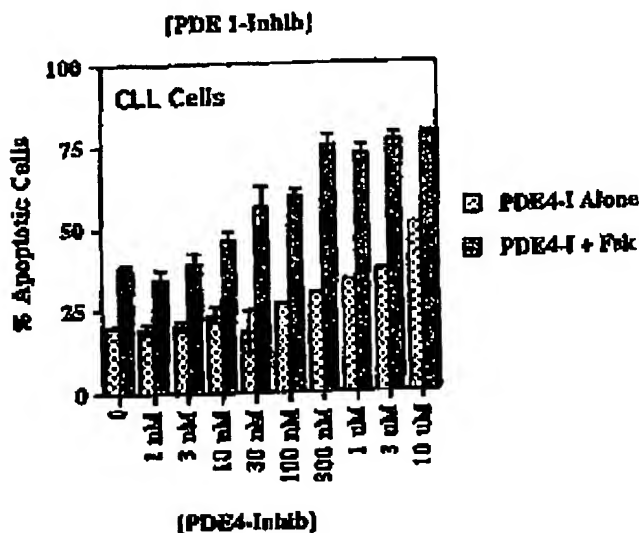
1. I am the inventor of the above-described application.
2. I am an Associate Professor of Medicine in the Section of Hematology/Oncology at Boston Medical Center, Boston University. A copy of my CV is attached hereto.
3. I have been advised that in the Office Action mailed November 1, 2004 in the above-described matter the Examiner claimed that because of the "well established unpredictability of treating chronic lymphocytic leukemia, one skilled in the art would not reasonably expect any and all type 4 cyclic adenosine monophosphate inhibitors to be therapeutically efficacious."
4. I respectfully disagree with the Examiner for the following reasons.
5. While treatment of CLL with certain therapies can be unpredictable I discovered that PDE4 inhibitors could be used to treat chronic lymphocytic leukemia. I demonstrated this with two working examples of the treatment of CLL by two different PDE4 inhibitors, namely rolipram and Ro20-174.
6. Thus, the issue is not the predictability of CLL, but what one can predict about other PDE4 inhibitors based upon work with other PDE4 inhibitors.

7. Rolipram is referred to as a prototypical PDE4 inhibitor. This means that people in the field view results obtained by using it as representative for results obtained using other PDE4 inhibitors. Table 2 of Teixeira et al. describes in detail a number of PDE4 inhibitors, and confirms their functional similarity. Teixeira et al., Trends in Pharm. Sci. 18:164-71.

8. Because of the functional similarity of the PDE4 inhibitors, I was confident that once I had demonstrated that rolipram was an efficacious treatment for CLL, other PDE4 inhibitors would also be useful to treat CLL. My studies with the PDE4 inhibitor Ro20-174 confirmed this finding. The data for both of these PDE4 inhibitors is included in the specification.

9. My results have been further confirmed by my studies of the treatment of CLL with a third PDE4 inhibitor. One set of my experiments is represented in the graph below. In this experiment, apoptosis was analyzed in CLL cells exposed to increasing concentrations of a PDE4 inhibitor in the presence or absence of 40 micromolar forskolin.

10. These results show that another PDE4 inhibitor can treat CLL as taught.



11. I obtained the PDE4 inhibitor used in this experiment under a confidentiality agreement with its manufacturer, a pharmaceutical company. Thus, I am not able to disclose its name or structure. I can certify that this compound is a highly selective inhibitor for PDE4, which is different from, but functionally similar to rolipram and Ro20-174.

12. Thus, for the above reasons, I respectfully disagree with the Examiner's statement that one skilled in the art would not reasonably expect type 4 cyclic adenosine monophosphate inhibitors other than rolipram and Ro20-174 to be therapeutically efficacious

13. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

3/30/2005

Date

Adam Lerner MD  
Adam Lerner